



Update of the United States Army and Air Force Installation Amphibian and Reptile Species Lists

Project # 13-642

Background:

The United States Army and Air Force occupies approximately 12.2 million and 8.8 million acres of land within the United States respectively. Prior to this study, no comprehensive inventory of the amphibian and reptile (herpetofauna) species on Army and Air Force installations had been conducted. Accurate information on the amphibian and reptile species confirmed present, and those with the potential to occur on individual military installations is critical to the management and conservation of these species and ensuring healthy landscapes for military readiness. In addition, updated species lists also provide senior leadership with data on the total herpetofauna biodiversity under the stewardship of each military Services.

Objective:

The objective of this project was to update the herpetofauna species lists for Army and Air Force installation with Integrated Natural Resource Management Plans (INRMPs) using a standardized protocol; compile the updated lists into a single database; and conduct an analysis of the total herpetofauna biodiversity on each Service's lands.

Summary of Approach:

We used a standardized protocol and multiple data sources to update the Army and Air Force installation herpetofauna species lists. Data sources included VertNet, National Amphibian Atlas, NatureServe, installation INRMP species list and site-specific surveys or species inventories. Each updated species list was sent to a state wildlife agency biologist/herpetologist or a regional expert for review and validation. In addition, species lists were also reviewed and by either installation natural resource managers or at the Army and Air Force Headquarters echelon.

Benefit:

The updated species lists and summary reports can be used by installation biologists to identify data gaps in the herpetofauna biodiversity of a particular site or as a tool to plan for baseline or species-specific surveys. They can also be used by Army and Air Force leadership to investigate the total herpetofauna biodiversity on their lands and also as a tool to identify which specific installations have Endangered Species

Act (ESA) protected species, State-listed species and those considered Species at Risk by NatureServe. These data can also be used to investigate the presence or absence of herpetofauna species on specific military installations if proposed or petitioned for listing by the U.S. Fish and Wildlife Service. In addition, these data facilitate data sharing between Army and Air Force installations, regions, and state and federal partners and may help foster effective, cooperative conservation initiatives and partnerships. Lastly, these data can be incorporated into installation INRMPs.

Accomplishments:

We updated the herpetofauna species lists and analyzed those data from 152 Army and 80 Air Force installations located within the continental United States. We found that Army lands support a total 355 confirmed herpetofauna species and Air Force lands support 336 confirmed species. The number of herpetofauna species found on Army and Air Force lands represents approximately 55 percent of all the native amphibian and reptile species found in the United States. Fort Stewart has the greatest number of confirmed species (100 species) for the Army whereas Avon Park Air Force Range (AFR) has the greatest number of confirmed species (70 species) for the Air Force. Our analysis has revealed that Army and Air Force lands support numerous Endangered Species Act (ESA) listed species, State-listed species and NatureServe–Species at Risk. In addition, Army and Air Force lands support 22 species of venomous snakes and several species of nonnative and native transplant amphibians and reptiles.



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